



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,763	08/07/2006	Romhild Martijn Hoogeveen	PHNL040124US	5886

38107 7590 08/15/2008
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
595 MINER ROAD
CLEVELAND, OH 44143

EXAMINER

FETZNER, TIFFANY A

ART UNIT	PAPER NUMBER
----------	--------------

2831

MAIL DATE	DELIVERY MODE
-----------	---------------

08/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/597,763

Applicant(s)

HOOGEVEEN, ROMHILD
MARTIJN

Examiner

Tiffany A. Fetzner

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>August 7, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement(s) (IDS)'s submitted on August 7, 2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements. The initialed and dated information disclosure statement (IDS) submitted on August 7, 2006 is attached to this Office action.

Drawings

3. The drawings are objected to because the drawings contain unidentified blank boxes which need to be properly labeled.

A) In **figure 1** blank-box **4** should be labeled "**power supply**" as taught on page 4 line 18 of applicant's original disclosure. Him and

B) In **figure 1** blank-box **6** should be labeled "**RF transmitter and modulator**" as taught on page 4 line 10 of applicant's original disclosure.

C) In **figure 1** double-box **8** should be labeled "**monitor**" as taught on page 4 line 22 of applicant's original disclosure.

D) In **figure 1** blank-box **9** should be labeled "**transmission / reception circuit**" as taught on page 4 line 16 applicant's original disclosure.

E) In **figure 1** blank-box **10** should be labeled "**signal amplifier and demodulation unit**" as taught on page 4 lines 15-16 applicant's original disclosure.

F) In **figure 1** blank-box **11** should be labeled "**control unit**" as taught on page 4 line 17 applicant's original disclosure.

G) In **figure 1** blank-box **12** should be labeled "**processing unit**" as taught on page 4 line 20 applicants original disclosure. Appropriate correction is required.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are also objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

A) In **figure 3**, component **21** is shown, but it is not taught in applicant original disclosure. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) is required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

A) the term “coil-like”, which is found throughout applicant’s specification is not described in a manner appropriately discloses the scope of this term. Appropriate correction of this term is required, wherever it occurs in applicant’s specification.

Claim Rejections - 35 USC § 112

7. **Claims 1-12 are** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. **Regarding claims 1-12**, the phrase "**coil-like**" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "coil-like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

9. For purposes of examination, the examiner has interpreted all phrases of "coil-like" to be "**RF coil structures**", as the applicant's intended scope of "coil-like" an unknown.

10. **Regarding claims 4-6**, these claims are also indefinite, because applicant has forgotten to set forth the frame of reference of the "relative movement" set forth in claim. The "relative movement" between the support bed and the first coil, **with respect to what?**

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. **Claim 1-10 are** rejected under **35 U.S.C. 102(b)** as being anticipated by **Englund et al.**, US patent 5,197,474, issued March 30, 1993.

13. With respect to **Claim 1**, **Englund et al.**, teaches and shows "An RF system for a magnetic resonance imaging device, comprising an RF transmitter coil subsystem and an RF receiver coil subsystems" [See column 1 line 18 through column 6 line 15 where

numerous configurations and arrangements of transmission and reception coils are taught.] The “wherein the RF receiver coil subsystem comprises at least one first coil-like element and at least one second coil-like element,” (i.e. see coil components 3, 4) “wherein the or each first coil-like element” (i.e. coil seat 3) “is assigned to a main magnet system of the magnetic resonance imaging device”, [See figures 1, 2 and 4 where coil seat 3 is built-in / permanently fixed or attached to the lower magnet assembly bed 2, of the MRI imager assembly, as an internal integral part of the patient support bed that moves into and out of the magnetic resonance imager and when inside the MRI imager is geometrically fixed with respect to the magnetic iso-center of the main magnet system of the MRI imaging apparatus.] “and wherein the or each second coil-like element is assigned to an object to be analyzed by the magnetic resonance imaging devices” [See knee coil component 11, of figures 3 and 4 as one example which is designed to conform to the anatomy of the patient’s knee. Additionally see the abstract and the combined teachings of column 1 line 18 through column 6 line 15.]

14. With respect to **Claim 2, Englund et al.**, teaches and shows “wherein the or each first coil-like element” (i.e. coil seat 3 which is part of lower bed 2), “is positioned below, preferably directly below, a support or bed” (i.e. upper bed 1) “on which the object to be analyzed is placed.” [See figures 1-4 the abstract and the combined teachings of column 1 line 18 through column 6 line 15.] The same reasons for rejection, which apply to **claim 1** also apply to **claim 2** and need not be reiterated.

15. With respect to **Claim 3, Englund et al.**, teaches and shows “wherein the or each first coil-like element, (i.e. such as RF back coil 10) “is designed as part of a built-in system body coil”. [See figures 1-4 the abstract and the combined teachings of column 1 line 18 through column 6 line 15 with respect to RF coil component 10, in combination with RF coil seat 3 which is a component that is built into the lower bed 2 of the lower main magnet assembly when lower bed 2 is located along the magnetic center of the MRI apparatus as indicated by dashed line 9 in figures 1 through 3.] The same reasons for rejection, which apply to **claims 1, 2** also apply to **claim 3** and need not be reiterated

Art Unit: 2831

16. With respect to **Claim 4, Englund et al.**, teaches and shows “wherein the or each first coil-like element is attached to the main magnet system of the magnetic resonance imaging device, in a way that a relative movement between said support or bed and the or each first coil-like element is possible. [See figures 1-4 the abstract and the combined teachings of column 1 line 18 through column 6 line 15 with respect to the various configurations, positions and locations of RF coils 4, 10, 11, 12; RF coil seat 3 lower bed 2 and upper bed 1.] The same reasons for rejection, which apply to **claims 1, 2** also apply to **claim 4** and need not be reiterated

17. With respect to **Claim 5, Englund et al.**, teaches that the radiofrequency coils 4, 10, 11, or 12 are secured to the patient support 2, in such a way that when the patient support 2 is moved axially relative to the bore, the radiofrequency coil located at RF coil seat 3, also moves axially with the support. **Englund et al.**, also teaches that patient bed 1 is also capable of separate movement away from RF coil seat location 3. Therefore, **Englund et al.**, teaches the limitation that “the or each first coil-like element” (i.e. RF coil 4, 10, 11 or 12 for example) is fixedly attached to said main magnet system, during main magnet imaging through RF coil seat 3, in a way that the upper patient support or upper bed 2 is movable relative to the or each fixed first coil-like element.” [See figures 1-4 the abstract and the combined teachings of column 1 line 18 through column 6 line 15] The same reasons for rejection, which apply to **claims 1, 2, 4** also apply to **claim 5** and need not be reiterated

18. With respect to **Claim 6, Englund et al.**, teaches “wherein the or each first coil-like element” (i.e. such as RF coils 4, 10, 11, 12) “is movably attached to the main magnet system, in a way that the support or bed (i.e. upper bed 1) “is movable relative to the or each first coil-like element” [See figures 1-4 the abstract and the combined teachings of column 1 line 18 through column 6 line 15] “and that the or each first coil-like element is movable relative to the main magnet system” [See again figures 1-4 the abstract and the combined teachings of column 1 line 18 through column 6 line 15.] The same reasons for rejection, which apply to **claims 1, 2, 4** also apply to **claim 6** and need not be reiterated

Art Unit: 2831

19. With respect to **Claim 7, Englund et al.**, teaches and shows from figures 3, 4 that “the or each second coil-like element” (i.e. such as upper RF coil component 12) “is positioned above, preferably directly above, the object to be analyzed by the magnetic resonance imaging device.” [See figures 3-4 the abstract and the combined teachings of column 1 line 18 through column 6 line 15 with respect to RF knee coil components 11, 12 where 12 is the upper RF Knee coil component.] The same reasons for rejection, which apply to **claim 1** also apply to **claim 7** and need not be reiterated

20. With respect to **Claim 8, Englund et al.**, teaches and shows “wherein the or each second coil-like element is attached to the object to be analyzed, in a way that the or each second coil-like element is movable together with the object to be analyzed.” [See figures 1, 3, & 4, in combination with each other; the abstract and the combined teachings of column 1 line 18 through column 6 line 15 with respect to the various positions and combinations of RF coils within the apparatus and how they attached to the patient to be analyzed within the MRI imager.] The same reasons for rejection, which apply to **claims 1, 7** also apply to **claim 8** and need not be reiterated

21. With respect to **Claim 9, Englund et al.**, teaches and shows “wherein the or each second coil-like element (i.e. coil component 12 of figures 3, 4) “is movable together with a support or bed on which the object to be analyzed is placed relative to the or each first coil-like element.” [See figures 1, 3, & 4, in combination with each other; the abstract and the combined teachings of column 1 line 18 through column 6 line 15 with respect to the various positions and combinations of RF coils within the apparatus and how they attached to the patient to be analyzed within the MRI imager.]]. The same reasons for rejection, which apply to **claims 1, 7, 8** also apply to **claim 9** and need not be reiterated

22. With respect to **Claim 10, Englund et al.**, teaches and shows “wherein the or each second coil-like element is designed as a wearable unit” (i.e. see knee coil components 11/12 of figures 3,4; or the wearable liver/head coil of column 5 lines 30 to 39), “wherein said wearable unit is attachable to the object to be analyzed, outside the magnetic resonance imaging device and before MRI analysis. [See figures 1, 3, & 4, in combination with each other; the abstract and the combined teachings of column 1 line

18 through column 6 line 15 with respect to the various positions and combinations of RF coils within the apparatus and how they attached to the patient to be analyzed within the MRI imager.] The same reasons for rejection, which apply to **claims 1, 7** also apply to **claim 10** and need not be reiterated

23. **Claims 1-4, 7-9, and 11-12 are** rejected under **35 U.S.C. 102(e)** as being anticipated by **Krockel et al.**, US patent application publication 2002/0138001 A1 published September 26, 2002, filed March 20th 2002.

24. With respect to **Claim 1**, **Kroeckel** teaches and shows “An RF system for a magnetic resonance imaging device, comprising an RF transmitter coil subsystem and an RF receiver coil subsystems” [See paragraph [0023] and paragraph [0026] transmission coil 6 and the local coil reception arrangement 7, 8.] “wherein the RF receiver coil subsystem comprises at least one first coil-like element and at least one second coil-like element,” (i.e. see coil components 7, 8) “wherein the or each first coil-like element is assigned to a main magnet system of the magnetic resonance imaging device” [See component 8, which in figure 1 is built-in / permanently fixed or attached to the lower magnet half of the MRI imager assembly as an internal part of the patient support base that moves into and out of the magnetic resonance imager and is identified by the double ended A, shown in figure 1] and **Kroeckel also** teaches that “wherein the or each second coil-like element is assigned to an object to be analyzed by the magnetic resonance imaging devices” because **Kroeckel** teaches that local receive coil component 7 is assigned to directly come in contact with the patient to be imaged. See also paragraphs [0008], [0017], [0021], [0023], [0025], and [0026]]

25. With respect to **Claim 2**, **Kroeckel** teaches and shows “wherein the or each first coil-like element” (i.e. coil component 8 of [0025], [0026]), “is positioned below, preferably directly below, a support or bed on which the object to be analyzed is placed.” [See figure 1 and paragraphs and [0025], [0026].] The same reasons for rejection, which apply to **claim 1** also apply to **claim 2** and need not be reiterated.

26. With respect to **Claim 3**, **Kroeckel** teaches and shows “wherein the or each first coil-like element is designed as part of a built-in system body coil”. [See figure 1 and

paragraphs and bracket 0025], [0026], work will six through eight are part of a system that is capable of being permanently prescribed, (i.e. built-into the MRI imager apparatus system).] The same reasons for rejection, which apply to **claims 1, 2** also apply to **claim 3** and need not be reiterated

27. With respect to **Claim 4**, **Kroeckel** teaches and shows “wherein the or each first coil-like element is attached to the main magnet system of the magnetic resonance imaging device, in a way that *a relative movement* between said support or bed and the or each first coil-like element is possible. [See figure 1, and the double ended arrow “A”, along with the teachings of paragraphs [0007] through [0035], which explains the ability to have more than one coil represented by component 8 and the ability to consistently move component 8 when the patient support is moved in a fixed relationship whereby motion of one component the patient support necessarily moves coil component 8 maintaining a constant relative motion and geometrical position to one another. The same reasons for rejection, which apply to **claims 1, 2** also apply to **claim 4** and need not be reiterated

28. With respect to **Claim 7**, **Kroeckel** teaches and shows from figures 1 through 8 that “the or each second coil-like element” (i.e. coil component 7) “is positioned above, preferably directly above, the object to be analyzed by the magnetic resonance imaging device.” [See figures 1 and 2; paragraphs [0021] through [0036]] The same reasons for rejection, which apply to **claim 1** also apply to **claim 7** and need not be reiterated

29. With respect to **Claim 8**, **Kroeckel** teaches and shows “wherein the or each second coil-like element is attached to the object to be analyzed, in a way that the or each second coil-like element is movable together with the object to be analyzed.” [See abstract, figures 1 and 2; paragraphs [0021] through [0036]]. The same reasons for rejection, which apply to **claims 1, 7** also apply to **claim 8** and need not be reiterated

30. With respect to **Claim 9**, **Kroeckel** teaches and shows “wherein the or each second coil-like element (i.e. coil component 7 of figure 1 with paragraph [0026]) is movable together with a support or bed on which the object to be analyzed is placed relative to the or each first coil-like element.” [See abstract, figures 1 and 2; paragraphs [0021] through [0036] and the double ended arrow which shows that the patient bed

Art Unit: 2831

moves axially, horizontally, into and out of the bore of the MRI device]. The same reasons for rejection, which apply to **claims 1, 7, 8** also apply to **claim 9** and need not be reiterated

31. With respect to **Claim 11**, **Kroeckel** teaches and shows “A magnetic resonance imaging device” [See abstract, paragraph [0001], figure 1, figure 2, and paragraphs [0021] through paragraph [0026]] “comprising a main magnet system” (i.e. component 4), “a gradient coil system” (i.e. component 5), “an RF system” (i.e. components 6-8) “and a signal processing system” (i.e. control computer component 10), “said RF system comprising an RF transmitter coil subsystem and an RF receiver coil subsystem” [See paragraphs [0025] and [0026]], “wherein the RF receiver coil subsystem comprises at least one first coil-like element and at least one second coil-like element, wherein the or each first coil-like element is assigned to the main magnet system, and wherein the or each second coil-like element is assigned to an object to be analyzed by the magnetic resonance imaging device” [See the rejection reasons given in the **rejection of claim 1**, which need not be reiterated]. The same reasons for rejection, which apply to **claim 1** also apply to **claim 11** and need not be reiterated

32. With respect to **Claim 12**, **Kroeckel** teaches and shows “A magnetic resonance imaging device according to claim 11” [See the rejection reasons given in the **rejection of claim 11**, which need not be reiterated], “wherein the RF system is an RF system according to claim 2”. (i.e. wherein the or each first coil-like element” (i.e. coil component 8 of [0025], [0026]), “is positioned below” (i.e. within the support bed), preferably directly below (i.e. directly under the surface of and within the support bed), “a support or bed on which the object to be analyzed is placed.” [See figure 1 and paragraphs and [0025], [0026].] The same reasons for rejection, which apply to **claims 1, 2, 11** also apply to **claim 12** and need not be reiterated

33. **Claims 1-7, and 11-12 are** rejected under **35 U.S.C. 102(e)** as being anticipated by **Young** US patent 6,529,004 B1 issued March 4, 2003, filed June 5, 2000.

34. With respect to **Claim 1**, **Young** teaches and shows “An RF system (i.e. component 7) “for a magnetic resonance imaging device, comprising an RF transmitter

coil subsystem" (see upper transmitter component 7 of figure 4) "and an RF receiver coil subsystems" [See lower our coil assembly 7 of figures 2, 3, 4 and 9.] "wherein the RF receiver coil subsystem comprises at least one first coil-like element and at least one second coil-like element," (i.e. see coil components A, B, C, D, and E of Figure 9, see also coil F of figure 4) "wherein the or each first coil-like element is assigned to a main magnet system of the magnetic resonance imaging device" [See col. 3 line 37 through col. 4 line 48 where the radiofrequency coil 7 is fixed relative to the magnet bore] "and wherein the or each second coil-like element is assigned to an object to be analyzed by the magnetic resonance imaging device" [See the coil components which conform about the patient and are built-in to the lower half of the MRI imager as a part of the patient support base that moves axially with the patient support when the patient enters the bore of the magnet. [See the abstract, column 2 lines 22 through 49, column 3 line 12 through column 5 line 20].

35. With respect to **Claim 2**, **Young** teaches that the coil arrays which are identified as 7 are used for both transmit and receive, although in principle a separate receive coil example of surface coil could be employed. [See column 4 lines 57 through 60]. Additionally **Young** teaches that "off axis regions of the patient may be readily imaged in continuous scan since the coil array can be displaced sideways and since the curvature of the end of the array conforms to that of the bore the coil can accommodate patients of different sizes because of the adjustable central section and, since the coil moves along the length of the bore with the patient support, the coil can be brought closer to the patient than would be the case if there was relative movement between the coil and the patient as in the known arrangement of figure 1. Padding could be included on top of the coil array for comfort and cosmetic reasons." [See column 4 line 63 through column 5 line 6]. Therefore with padding in place covering coil arrangement 7 on which the patient is laid, it is clear that **Young** teaches the limitation "wherein the or each first coil-like element is positioned below, preferably directly below, a support or bed (i.e. such as patient padding) "on which the object to be analyzed is placed." [See column 4 line 63 through column 5 line 6]. The same reasons for rejection, which apply to **claim 1** also apply to **claim 2** and need not be reiterated.

36. With respect to **Claim 3**, **Young** teaches that “wherein the or each first coil-like element is designed as part of a built-in system body coil”. [See figures 1 through 9. See column 3 line 37 through column 5 line 20.] The same reasons for rejection, which apply to **claims 1, 2** also apply to **claim 3** and need not be reiterated

37. With respect to **Claim 4**, **Young** teaches and shows because coil arrangement seven is attached to the patient support but designed in order to mirror the shape of the magnet bore the limitation of “wherein the or each first coil-like element is attached to the main magnet system of the magnetic resonance imaging device, in a way that a relative movement between said support or bed and the or each first coil-like element is possible. [See figures 2, 3, and 4 in combination with one another; the abstract, column 2 lines 23 through 50, and column 3 line 37 through column 5 line 20.] The same reasons for rejection, which apply to **claims 1, 2** also apply to **claim 4** and need not be reiterated

38. With respect to **Claim 5**, **Young** teaches that the radiofrequency coil array 7 is secured to the patient support 1, in such a way that when the patient support is moved axially relative to the bore, the radiofrequency coil also moves axially with the support. The radiofrequency coil 7 is also movable laterally, as shown in figure 3. [See col. 3 lines 37-45] Additionally, **Young** teaches that it is also possible to have the patient support 1 move laterally relative to the coil array 7 (i.e. to have the coil array 7 be fixed to the magnet bore as is known from figure 1, while the patient support 1 itself is moved laterally) in which case the relative lateral movement would be between the patient support 1 and the runners 2 of figures 1 through 4. [See column 5 lines 7 through 20.] Therefore, **Young** teaches the limitation that “the or each first coil-like element is fixedly attached to said main magnet system, in a way that the support or bed is movable relative to the or each fixed first coil-like element. The same reasons for rejection, which apply to **claims 1, 2, 4** also apply to **claim 5** and need not be reiterated

39. With respect to **Claim 6**, **Young** teaches “wherein the or each first coil-like element is movably attached to the main magnet system, in a way that the support or bed is movable relative to the or each first coil-like element” [See column 3 line 13 through column 5 line 20, especially column 5 lines 7 through 20 where the variation of

having the patient support move relative to the coil system is taught.] “And that the or each first coil-like element is movable relative to the main magnet system” [See column 3 line 13 through column 5 line 20, especially column 3 lines 37 through 50 where the variation of having the coil elements move axially and laterally, in conjunction with the patient support relative to the main magnet system is directly taught as an aspect of the Young invention.] The same reasons for rejection, which apply to **claims 1, 2, 4** also apply to **claim 6** and need not be reiterated

40. With respect to **Claim 7**, **Young** teaches and shows from figure 4 that “the or each second coil-like element is positioned above, preferably directly above, the object to be analyzed by the magnetic resonance imaging device.” [See column for line 51 through column 5 line 20.] The same reasons for rejection, which apply to **claim 1** also apply to **claim 7** and need not be reiterated

41. With respect to **Claim 11**, **Young** teaches and shows “A magnetic resonance imaging device, comprising a main magnet system, a gradient coil system, an RF system and a signal processing system” [See column lines 12 through 30], “said RF system comprising an RF transmitter coil subsystem and an RF receiver coil subsystem, wherein the RF receiver coil subsystem comprises at least one first coil-like element and at least one second coil-like element, wherein the or each first coil-like element is assigned to the main magnet system, and wherein the or each second coil-like element is assigned to an object to be analyzed by the magnetic resonance imaging device.” [See the rejection reasons given in the **rejection of claim 1**, which need not be reiterated]. The same reasons for rejection, which apply to **claim 1** also apply to **claim 11** and need not be reiterated

42. With respect to **Claim 12**, **Young** teaches and shows “A magnetic resonance imaging device according to **claim 11**” [See the rejection reasons given in the **rejection of claim 11**, which need not be reiterated], “wherein the RF system is an RF system according to claim 2”. (i.e. wherein the or each first coil-like element is positioned below, preferably directly below a support or bed on which the object to be analyzed is placed.” [See the rejection reasons given in the **rejection of claims 1, 2**, which need not be

Art Unit: 2831

reiterated], The same reasons for rejection, which apply to **claims 1, 2, 11** also apply to **claim 12** and need not be reiterated

Prior Art of Record

43. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Wang et al., United States patent 5,928,140 issued July 27, 1999.

B) Yasuhara et al., United States patent 7,218,106 B2 issued May 15,

C) . Zhu et al., United States patent 7,009,396 B2 issued March 7, 2006 filed September 12, 2002.

Conclusion

44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Fetzner whose telephone number is: (571) 272-2241. The examiner can normally be reached on Monday, Wednesday, and Friday-Thursday from 7:00am to 2:10 pm., and on Tuesday and Thursday from 7:00am to 5:30pm.

45. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Diego Gutierrez**, can be reached at (571) 272-2245. The **only official fax phone number** for the organization where this application or proceeding is assigned is **(571) 273-8300**.

46. Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PMR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Diego Gutierrez/
Supervisory Patent Examiner, Art Unit 2831

/TAF/
August 15, 2008